

The diagram illustrates a system architecture for financial data and collection efforts. It is divided into two main sections: the Financial data facility 110 and the Collection efforts data facility 130, separated by a dashed line.

Financial data facility 110:

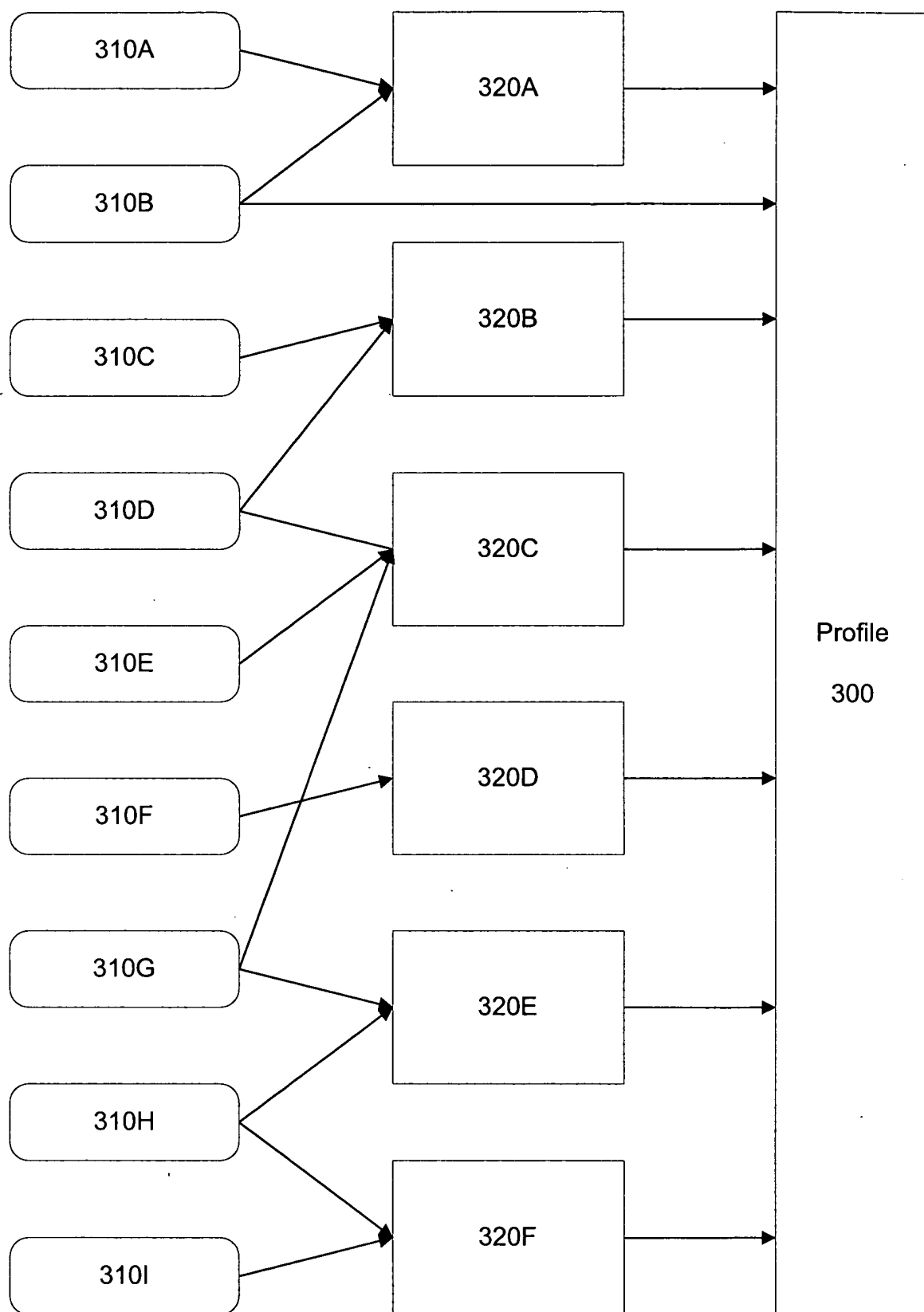
- Authorization System 112:** Interacts with data store 113 (Authorizations) and data store 121 (Payments/Reversals).
- Account Management 120:** Interacts with data stores 122 (Cardholder Masterfile), 123 (Account Transfers), and 124 (Exceptions).
- Customer Service 115:** Interacts with data store 116 (Notes) and data store 117 (Contact Information).
- Data Stores:** 111 (Loan Application Information), 113 (Authorizations), 121 (Payments/Reversals), 122 (Cardholder Masterfile), 123 (Account Transfers), 124 (Exceptions), 116 (Notes), and 117 (Contact Information).

System 100: Receives data from all data stores in the Financial data facility 110 and serves as the central hub for data exchange.

Collection efforts data facility 130:

- Delinquent Account Profiles 132:** Interacts with System 100.
- Action/Result 136:** Interacts with System 100.
- Collector Notes 134:** Interacts with System 100.
- Account Decisioning and Strategy Management 140:** Interacts with System 100 and the Collections Workflow 142.
- Calls/Contacts 145:** Interacts with the Dialer 144 and the Collections Workflow 142.
- Dialer 144:** Interacts with the Collections Workflow 142.
- Collections Workflow 142:** Interacts with the Collections Masterfile 146, the Dialer 144, and the Collectors 141A and 141B.
- Collections Masterfile 146:** Interacts with the Collections Workflow 142.
- Collector 141A and Collector 141B:** Receive data from the Collections Workflow 142.

FIG. 1



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graph TD; subgraph BuildContextVectorModel [Build context vector model]; direction TB; 410[Construct set of documents 410] --> 412[Data cleansing 412]; 412 --> 414[Construct co-occurrence matrix 414]; 414 --> 416[Select context vectors 416]; 416 --> 418[Construct document vectors 418]; 418 --> 420[Cluster all document vectors and compute N cluster centroid vectors 420]; end; 420 --> 430[Construct document for current delinquent debt account 430]; subgraph UseContextVectorModel [Use context vector model for current delinquent debt account]; direction TB; 430 --> 432[Data cleansing 432]; 432 --> 434[Construct document vector 434]; 434 --> 436[Project document vector onto each cluster centroid vector 436]; 436 --> 438[Use cluster centroid projections as inputs to predictive model 438]; end;
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The flowchart illustrates a two-stage process for building and using a context vector model. The first stage, enclosed in a dashed box, is titled "Build context vector model" and includes steps 410 through 420. The second stage, enclosed in a dotted box, is titled "Use context vector model for current delinquent debt account" and includes steps 430 through 438. Arrows indicate the sequential flow of the process.

FIG. 4

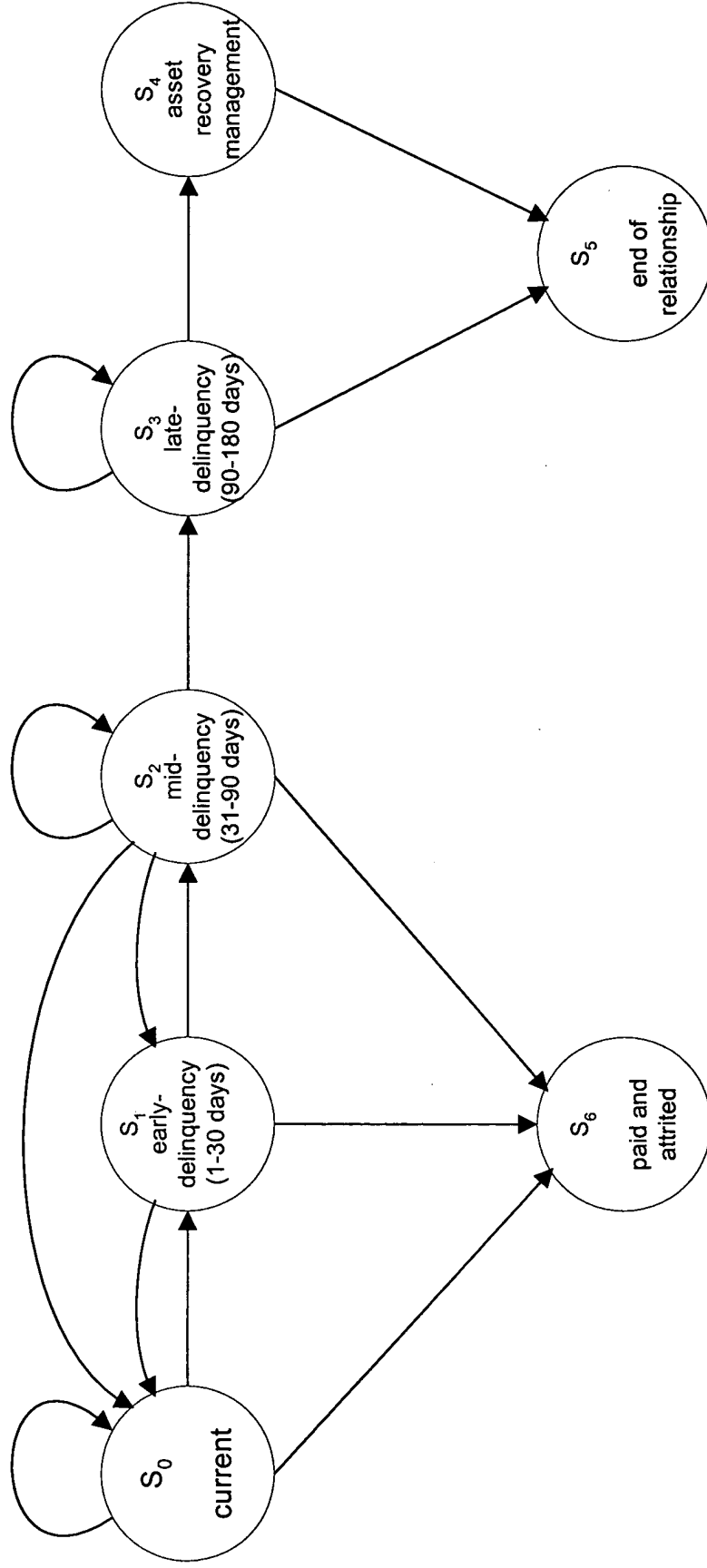
[illegible]

FIG. 5

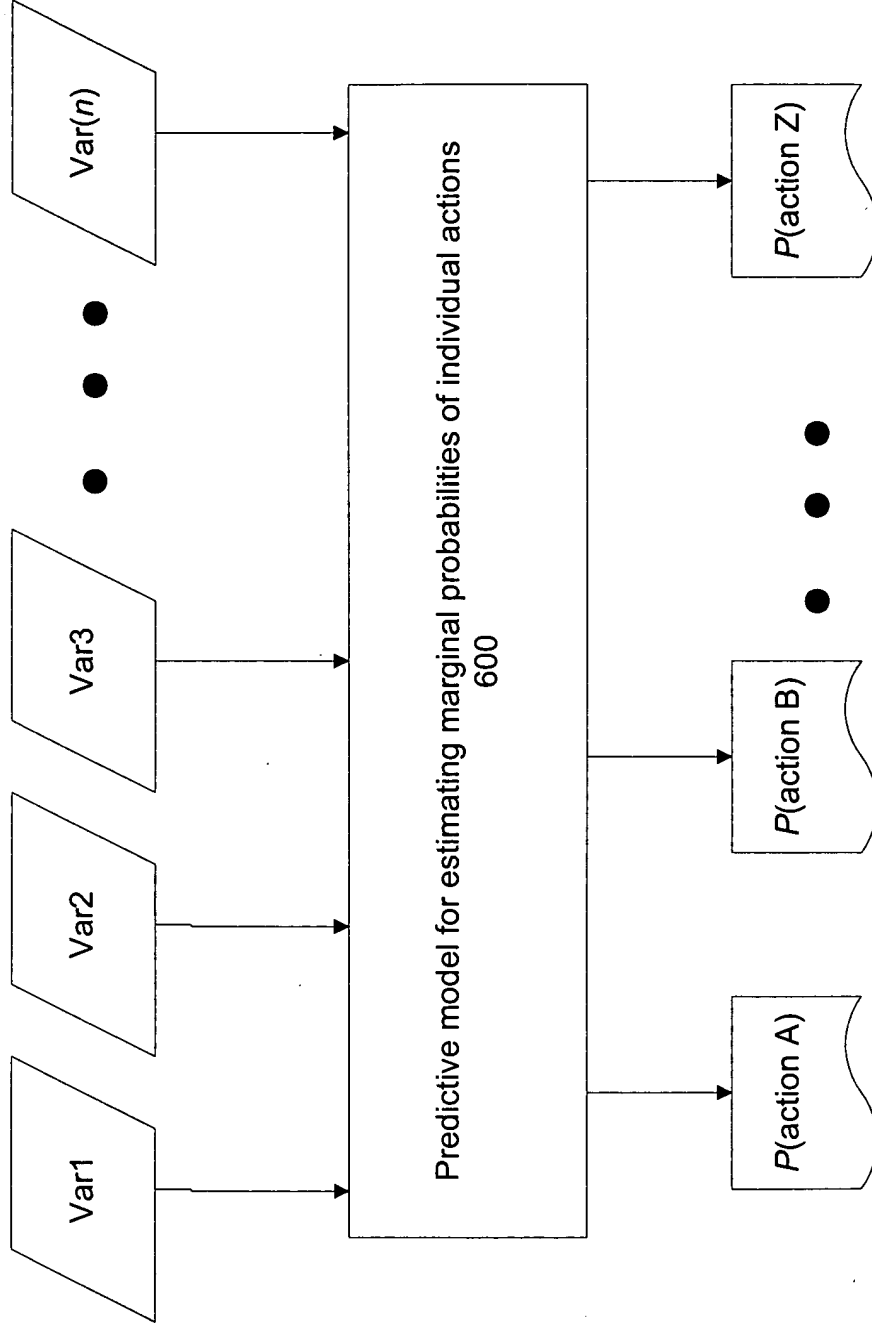


FIG. 6